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ABSTRACT

A study was conducted of the factors affecting the utilization of educational television in elementary and secondary schools in the 127 school districts in the state of Alabama. Based upon the results of previous studies, five variables were investigated: (1) percentage of K-12 students in the total student population, (2) ratio of students to videotape recorders, (3) ratio of students to television receivers, (4) ratio of students to color television receivers, and (5) student population within individual districts. A questionnaire was used to gather information pertaining to the five variables, as well as to the percentage of students utilizing instructional television. The effects of each of the variables studied were measured by means of stepwise multiple regression. Scheduling was found to be the most important variable affecting the use of educational television in instruction. Further study using a wider range of variables, specifically curricula variables, was recommended. A review of the literature on the use of educational television in instruction, a 14-item bibliography, and two tables accompany the report. (Author/JL)

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FACTORS AFFECTING INSTRUCTIONAL TELEVISION UTILIZATION IN ALABAMA

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INTRODUCTION

The coming of television to the world of education was hailed as a great potential for learning during the late 1950's and the decade of the 1960's. Money was available under various federal programs for purchase of television sets and video equipment. Some school systems were even able to install sophisticated closed-circuit television and dial-access systems. Not all of these were successful, and some were outright failures (Dignam, 1977). But for television itself, the future looked bright, with PBS programs such as Sesame Street and The Electric Company leading the way. Projections such as the Delphi Forecast (Robinson, 1973) saw education in 1990 making wide use of cable television, satellites transmitting knowledge over long distances, and television instruction becoming as heavy as 60 to 70 percent.

A review of the literature on the use of television in instruction indicates that in the beginning of the 1980's we are far from the use of television projected by the Delphi Forecast. The most comprehensive study available (Dirr and Pedone, 1979), a study that is a representative sampling of some 46,000,000 students, finds that while 72 percent of teachers have access to Instructional Television (ITV), only about 32 percent make regular use of ITV. Broken down by grade level, 41 percent of elementary teacher, 24 percent of middle/junior high schools; and

21 percent of high schools regularly used ITV (Dirr and Pedone, 1979). Other studies give similar results (Dobosh, 1972; Schneller, 1977; Swinehart, 1979).

If ITV is not being used to its potential, what are the reasons? A number of studies have been done in an attempt to answer this question. In a 1976 study, Joseph Broussard surveyed elementary teachers concerning 36 factors which could possibly limit the use of ITV. The major factors found to affect usage were teacher attitude, school and class size, grade level, planning and management, content of programs, availability of television receivers, and access to video tape recorders (Broussard, 1976). In another broad study, the Agency for Instructional Television solicited information from 28 individuals having responsibilities in local, regional, and state instructional television organizations in the United States and Canada. They were asked to respond to questions concerning the current status of secondary ITV in the respondent's area, a statement concerning the respondent's philosophy concerning television in the secondary school, and examples of success or failures in the respondent's area. The major factors given affecting ITV usage were inflexibility of broadcast scheduling, lack of equipment for off-air recording, lack of availability of an ITV coordinator, lack of teacher training, and poor programming (Schneller, 1977).

A second Agency for Instructional Television study also concerned secondary schools and ITV. This study by Monica Dignam surveyed the current literature concerning the use or lack of use of ITV. Positive factors affecting usage were the availability of videocassette recorders,

relaxing off-air copying rules, and better secondary programming. Negative factors include teacher resistance or apathy, programming scheduling problems, and the scheduling of equipment (Dignam, 1977).

Several other studies were also found of a less broad nature. One of these was a 1972 study in Toronto, Canada, which analyzed ITV and film utilization in 13 elementary and secondary schools in the Toronto area. Four major findings were made by this study. They were the following: teachers had to have ready access to television; having access to television did not affect teachers who did not previously use it; color vs. black and white made little difference; and the use of video tape seemed to help the use of television in non-selfcontained classrooms (Dobosh, 1972).

Another localized study was done in San Antonio, Texas, under the auspices of the Southwest Texas Educational Television Council. In 1972-73, a study was done on the usage of ITV programming provided by KLRN-TV, Channel 9, San Antonio, Texas. The major finding of this study was that the use of television varied in direct proportion with the number of television sets available in the school (Southwest Texas Educational Television Council, 1973).

A third localized study comes from West Virginia. Here a scientific survey of school systems that cooperate with a public television station was conducted. The major factors that affected teacher usage of ITV were such things as inconvenient broadcast time, lack of available equipment, poor reception, lack of time, and lack of suitable programs. The largest area of usage was in the elementary grades where self-contained classrooms were used (Willis, 1978).

Maftoon (1982) surveyed 600 teachers representing 200 public schools in Massachusetts who revealed that scheduling was the major factor limiting teachers in their use of television programs. This negative factor was much more prevalent among secondary teachers than elementary teachers. Availability of equipment was also an important factor in this study.

The final three studies are all concerned with the use of the PBS program, The Electric Company. A national survey by Triangle Institute in 1977 on the use of The Electric Company also solicited factors affecting ITV usage in general. Reasons given for lack of usage included poor reception, lack of equipment, poor condition of equipment, and inconvenient programming (Triangle Institute, 1977). The second TEC study was also done in 1977 and consisted of interviews with elementary teachers and professional ITV spokespersons for public TV stations. The two leading reasons given for lack of use were inconvenient broadcast times and the level of programming (Mielke, 1977). The third TEC surveyed teachers on the effect of information kits on usage. The primary negative factor on ITV usage that came from this study was rigid scheduling (Swinehart, 1979).

Most of the studies surveyed cited similar reasons for the non-use of ITV. Other than lack of equipment, the most common problem, the main reasons given centered on scheduling. Out of all the studies that attempted to determine the factors affecting ITV usage, only one failed to list inconvenient scheduling as a factor. In the largest of these studies (Dirr, 1979) inconvenient broadcast schedules was given by respondents as the single most important deterrent to ITV usage. Closely related to the problem of scheduling was the inability to record off the air, either

because of copyright or because of the lack of video recorders. Six of the studies listed this as a major problem.

The present study attempted to determine the factors that influenced the utilization of instructional television (ITV) by K-12 students in the State of Alabama.

METHODOLOGY

The population for this study was all 127 school districts in Alabama. Based upon results of previous studies, five variables were investigated regarding influence upon television utilization. These were: 1) percentage of K-12 students in total student population, 2) ratio of students to videotape recorders, 3) ratio of students to television receivers, 3) ratio of students to color television receivers, and 5) student population of district.

A questionnaire was utilized to gather information pertaining to the five variables as well as the percentage of students utilizing instructional television. A student was considered as utilizing ITV if he/she, during the past six months, was exposed to the majority of the segments of an ITV series. During the Spring of 1979, the questionnaire was mailed to the ITV coordinator in each district. Of the 127 coordinators, 84, or 66% of the coordinators, returned questionnaires that were complete enough for analysis.

RESULTS

Means, Standard Deviations, and Medians of Variables

As can be seen in Table 1, there was a mean reported utilization of 39% with a very high standard deviation of 55%. Excluding the K-6 population variable, the other variables also exhibited a high degree of dispersion with a positive skew. A comparison of the means and medians leads to the conclusion that several systems with little equipment and a substantial number of students caused a non-symetrical distribution.

[PLACE TABLE 1 HERE PLEASE.]

Multiple Regression

In order to investigate the effect of each of the variables, a stepwise multiple regression was performed with percentage of K-12 students in total student population, number of students per videotape recorder, number of students per television receiver, number of students per color television receiver, and total student population as independent variables entered against percentage of utilization as the dependent variable. A cut-off point of one percent of additional variance accounted for was stipulated as an independent variable utilization criterion.

As can be seen in Table 2, the variable pertaining to the number of students per videotape recorder entered first and accounted for 7.5% of the variance. The number of students per television receiver entered next and accounted for an additional two percent of the variance, bringing the total variance explained to 9.5%. Both variables were negatively correlated with utilization, i.e., the lesser the number of students who shared the equipment, the greater the percentage of students in a system that utilized ITV. The remaining independent variables did not contribute the minimum additional variance required for entrance into the equation.

[PLACE TABLE 2 HERE PLEASE]

CONCLUSIONS

The total amount of variance accounted for by the independent variables was somewhat disappointing. The fact that the VTR variable entered before number of television receivers, however, is consistent with the findings of other studies that scheduling is the single most important variable. Perhaps copyright considerations or lack of training in equip-

ment usage reduced the effect of the first variable. Another factor might be the existence of a threshold number of students per VTR, over which the frustration level precludes any usage.

More surprisingly, was the lack of entrance by the K-12 student variable. As this group usually has larger blocks of time, this more flexible scheduling should lend itself to greater utilization than the restricted scheduling found in secondary schools.

Evidently, there exists variables which account for upwards to 90% of the variance which were not utilized in this study. Since curricula variables were not considered, perhaps a great deal of the missing explanatory power is in this direction.

RECOMMENDATIONS

Further study utilizing a wider range of variables is indicated. The formulation and use of variables that represent a matching of extant curricula with that presented on ITV programs should be considered.

In order to fulfill the promise that instructional television so evidently holds, action across a broad spectrum must take place. Based upon the results of this study, the attempt to provide videotape equipment and trained personnel should be continued and enlarged. Off-air copying regulations should be liberalized and clarified so that existing equipment can be utilized most efficiently.

BIBLIOGRAPHY

Broussard, E. Joseph. "Factors Affecting the Use of Instructional Television in the Classroom." ERIC (1976): ED 165 805.

Dignam, Monica. "Research on the Use of Television in Secondary Schools. Research Report No. 48." ERIC (1977): ED 156 166.

Dignam, Monica and Stocking, S. Holly. "The ITV Experience at Evanston Township High School. Research Report No. 52." ERIC (1977): ED 157 541.

Dirr, Peter J. and Pedone, Ronald J. "School TV Utilization Study." ERIC (1977): ED 148 397.

Dirr, Peter J. and Pedone, Ronald J. "Uses of Television for Instruction 1976-77: Final Report of the School TV Utilization Study." ERIC (1979): ED 180 015.

Dobosh, O. and Wright, E. N. "Television Utilization." ERIC (1972): ED 072 656.

Maftoon, Javad. "ITV: Are Teachers Using It?" T.H.E. Journal, 1982, 9(2) February, pp. 45-46.

Mielke, Keith W. "Barriers to Classroom Use of The Electric Company: A Formative Analysis." ERIC (1977): ED 153 654.

Research Triangle Institute. "A Survey of the Use of The Electric Company for Classroom Instruction 1976-1977: Final Report." ERIC (1977): ED 153 620.

Robinson, Burke E. "A Delphi Forecast of Technology in Education." ERIC (1973): ED 082 497.

Schneller, Paul. "A Challenging Picture: The Status of ITV Utilization in Secondary Schools." ERIC (1977): ED 157 539.

Southwest Texas Educational Council. "Instructional Television Survey, KLRN, Channel 9, 1972-1973." ERIC (1973): ED 078 651.

Swinehart, James W. "Effects of Information Kits on Teacher Utilization of The Electric Company." ERIC (1979): ED 175 420.

Willis, John A. "The Use of Instructional Television in West Virginia Elementary Schools, 1977-78." ERIC (1978): ED 168 554.

TABLE 1

Means, Standard Deviations, and Medians
for Independent and Dependent Variables

Variable	Mean	SD	Median
% of K-6	51.74	4.67	51.9
Number of students per VTR	2370	1790	1837
Number of students per color receiver	3047	2664	2361
Number of students per television	785	730	613
Student population	7676	11,306	4,022
Percent of Utilization	39.22	55.76	34.45

TABLE 2

Multiple Regression Summary Table
for Percentage of Utilization

Independent Variables	Multiple R	R Square	RSO Change	Simple R
Students per VTR	.2752	.0757	.0757	-.2752
Students per television	.3096	.0958	.0201	-.1877

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